IN THE CLAIMS

1   (1)   Claim 1: (currently amended) A network switch comprising:

2   a CPU;

3   a memory system having circuitry operable to attach to the CPU;

4   a switch fabric system having circuitry operable to attach to the CPU;

5   a port controller having circuitry operable to attach to the switch fabric system;

6   a software application operable to execute on the CPU;

7   a Forwarding Database Distribution Library (FDDL) system operable to execute

8   on the CPU; ~~and~~

9   a switch device driver operable to execute on the CPU,

10   wherein the software application is operable ~~to~~ communicate with the FDDL

11   system, the FDDL system is operable to communicate with the switch device driver, the

12   switch device driver is operable to communicate with the switch fabric; and

13   a second software application operable to execute on the CPU,

14   wherein the second software application communicates with the FDDL system;

15   wherein the FDDL system comprises:

16   a base FDDL system;

17   a software application tower FDDL system; and

18   a second software application tower FDDL system,

19   wherein the base FDDL system communicates with the switch device driver, the

20   software application communicates with the software application tower FDDL system,

21   the second software application communicates with the second software application

22   tower FDDL system, and the base FDDL system communicates with the software

23   application tower FDDL system and the second software application tower FDDL

24   system.

(2)   Claim 2: (cancelled)

1   (3)   Claim 3: (original) The network switch of claim 1 wherein the FDDL system

2   defines an FDDL API for communication with the software application, and the FDDL

3   system defines a Switch Services API for communication with the switch device driver.

1   (4)   Claim 4: (currently amended)   The network switch of claim 2 1 wherein the

2   FDDL system defines an FDDL API for communication with the software application

3   and the second software application, and the FDDL system defines a Switch Services

4   API for communication with the switch device driver.

(5)   Claim 5: (cancelled)

1   (6)   Claim 6: (currently amended)   The A network switch of claim 1 further

2   comprising:

3   a CPU;

4   a memory system having circuitry operable to attach to the CPU;

5   a switch fabric system having circuitry operable to attach to the CPU;

6   a port controller having circuitry operable to attach to the switch fabric system;

7   a software application operable to execute on the CPU;

8   a Forwarding Database Distribution Library (FDDL) system operable to execute

9   on the CPU;

10   a switch device driver operable to execute on the CPU;

11   an independent software application operable to execute on the CPU; and

12   an independent software application shim operable to execute on the CPU,

13   wherein the software application is operable to communicate with the FDDL

14   system, the FDDL system is operable to communicate with the switch device driver, the

15   switch device driver is operable to communicate with the switch fabric, the independent

16   software application communicates with the independent software application shim and

17   the independent software application shim communicates with the switch device driver.

1   (7)   Claim 7: (original) The network switch of claim 6 further comprising a second

2   software application operable to execute on the CPU,

3   wherein the FDDL system defines an FDDL API for communication with the

4   software application and the second software application, and the FDDL system defines

5   a Switch Services API for communication with the switch device driver.

1   (8)   Claim 8: (original) The network switch of claim 6 wherein the FDDL system

2   comprises:

3   a base FDDL system;

4   a software application tower FDDL system; and

5   a second software application tower FDDL system

6   wherein the base FDDL system communicates with the switch device driver, the

7   software application communicates with the software application tower FDDL system,

8   the second software application communicates with the second software application

9   tower FDDL system, and the base FDDL system communicates with the software

10   application tower FDDL system and the second software application tower FDDL

11   system.

1   (9)   Claim 9: (currently amended) A network switch comprising:

2   a CPU;

3   a memory system having circuitry operable to attach to the CPU;

4   a switch fabric system having circuitry operable to attach to the CPU;

5   a port controller having circuitry operable to attach to the switch fabric system;

6   a protocol means for providing a service to a network system;

7   a Forwarding Database Distribution Library (FDDL) means for communicating

8   with the protocol means; ~~and~~

9   a switch device driver means for communicating with the FDDL means and the

10   port controller;

11   an independent protocol means for providing an independent service to the

12   network system; and

13   an independent protocol shim for communicating with the independent protocol

14   means and the switch device driver means.

1   (10)   Claim 10: (original) The network switch of claim 9 further comprising a second

2   protocol means for providing a second service to the network system,

3   wherein the FDDL means communicates with the second protocol means.

1   (11)   Claim 11: (original) The network switch of claim 9 wherein the FDDL means

2   defines an FDDL API for communication with the software application, and the FDDL

3   means defines a Switch Services API for communication with the switch device driver.

1   (12)   Claim 12: (original) The network switch of claim 10 wherein the FDDL means

2   defines an FDDL API for communication with the protocol means and the second

3   protocol means, and the FDDL system defines a Switch Services API for communication

4   with the switch device driver means.

1   (13)   Claim 13: (currently amended) ~~The network switch of claim 10~~ A network

2   switch comprising:

3   a CPU;

4   a memory system having circuitry operable to attach to the CPU;

5   a switch fabric system having circuitry operable to attach to the CPU;

6   a port controller having circuitry operable to attach to the switch fabric system;

7   a protocol means for providing a service to a network system;

8   a Forwarding Database Distribution Library (FDDL) means for communicating

9   with the protocol means;

10   a switch device driver means for communicating with the FDDL means and the

11   port controller,

12   wherein the FDDL means comprises:

13   a base FDDL means for communicating with the switch device driver means;

14   a protocol tower FDDL means for communicating with the protocol means and

15   the base FDDL means; and

16   a second protocol tower FDDL means for communicating with the second

17   protocol means and the base FDDL means.

(14)   Claim 14: (cancelled)

1   (15)   Claim 15: (currently amended)   The network switch of claim 9 ~~14~~ further

2   comprising a second protocol means for providing a second service to the network

3   system,

4   wherein the FDDL means communicates with the second protocol means.

1   (16)   Claim 16: (currently amended) The network switch of claim 9 ~~14~~ wherein the

2   FDDL means comprises:

3   a base FDDL means for communicating with the switch device driver means;

4   a protocol tower FDDL means for communicating with the protocol means and

5   the base FDDL means; and

6   a second protocol tower FDDL means for communicating with the second

7   protocol means and the base FDDL means.

1   (17)   Claim 17: (currently amended) A method of providing communications over a

2   network system utilizing a first protocol and a second protocol, the method comprising

3   the steps of:

4   receiving information at a port controller in a first protocol from a first node

5   machine;

6   communicating the information from the port controller to a switch fabric;

7   communicating the information from the switch fabric to a switch device driver

8   within an operating system;

9   communicating the information from the switch device driver to a Forwarding

10   Database Distribution Library (FDDL); ~~and~~

11   communicating the information from the FDDL to a first protocol client;

12   <u>receiving additional information at a port controller in a second protocol from a</u>

13   <u>first node machine;</u>

14   <u>communicating the additional information from the port controller to a switch</u>

15   <u>fabric;</u>

16   <u>communicating the additional information from the switch fabric to a switch</u>

17   <u>device driver within an operating system;</u>

18   <u>communicating the additional information from the switch device driver to a</u>

19   <u>Forwarding Database Distribution Library (FDDL);</u>

20   <u>communicating the additional information from the FDDL to a second protocol</u>

21   <u>client;</u>

22   <u>receiving the information from the switch device driver at an FDDL base within</u>

23   <u>the FDDL;</u>

24   <u>passing the information from the FDDL base to a first protocol FDDL tower</u>

25   <u>within the FDDL; and</u>

26   <u>sending the information from the first protocol FDDL tower to the first protocol</u>

27   <u>client.</u>

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(18)   Claim 18: (cancelled)

1   (19)   Claim 19: (currently amended) The method of claim ~~18~~ 17 wherein

2   all communicating between the switch device driver to the FDDL is done through

3   a switch services API; and

4   all communicating from the FDDL to the first protocol client and the second

5   protocol client is done through an FDDL API.

1   (20)   Claim 20: (currently amended) The method of claim ~~18~~ 17 further comprising

2   the steps of:

3   defining a switch services API for communication between the switch device

4   driver; and

5   defining an FDDL API for communication between the first protocol client and

6   the FDDL.

         (21)   Claim 21: (cancelled)

1   (22)   Claim 22: (currently amended) A computer-readable medium having stored

2   thereon computer-executable instructions for performing the steps comprising:

3   receiving information at a port controller in a first protocol from a first node

4   machine;

5   communicating the information from the port controller to a switch fabric;

6   communicating the information from the switch fabric to a switch device driver

7   within an operating system;

8   communicating the information from the switch device driver to a Forwarding

9   Database Distribution Library (FDDL); ~~and~~

10   communicating the information from the FDDL to a first protocol client;

11   <u>receiving additional information at a port controller in a second protocol from a</u>

12   <u>first node machine;</u>

13   <u>communicating the additional information from the port controller to a switch</u>

14   <u>fabric;</u>

15   <u>communicating the additional information from the switch fabric to a switch</u>

16   <u>device driver within an operating system;</u>

17 communicating the additional information from the switch device driver to a

18 Forwarding Database Distribution Library (FDDL);

19 communicating the additional information from the FDDL to a second protocol

20 client;

21 receiving the information from the switch device driver at an FDDL base within

22 the FDDL;

23 passing the information from the FDDL base to a first protocol FDDL tower

24 within the FDDL; and

25 sending the information from the first protocol FDDL tower to the first protocol client.

(23) Claim 23: (cancelled)

1 (24) Claim 24: (currently amended) The computer-readable medium of claim ~~23~~ 22

2 wherein

3 all communicating between the switch device driver to the FDDL is done through

4 a switch services API; and

5 all communicating from the FDDL to the first protocol client and the second

6 protocol client is done through an FDDL API.

1 (25) Claim 25: (currently amended) The computer-readable medium of claim ~~23~~ 22

2 having further stored thereon computer-executable instructions for performing the steps

3 comprising:

4 defining a switch services API for communication between the switch device

5 driver; and

6 defining an FDDL API for communication between the first protocol client and

7 the FDDL.

(26)   Claim 26: (cancelled)

1   (27)   Claim 27: (currently amended) A network system comprising:

2   a network switch comprising a CPU, a memory system having circuitry operable

3   to attach to the CPU, a switch fabric system having circuitry operable to attach to the

4   CPU a port controller having circuitry operable to attach to the switch fabric system, a

5   software application operable to execute on the CPU, a Forwarding Database

6   Distribution Library (FDDL) system operable to execute on the CPU, and a switch device

7   driver operable to execute on the CPU,

8   wherein the software application is operable to communicate with the FDDL

9   system, the FDDL system is operable to communicate with the switch device driver, and

10   the switch device driver is operable to communicate with the switch fabric;

11   a backbone; and

12   a workstation,

13   wherein the workstation is logically connected to the backbone, and

14   wherein the backbone is logically connected to the port controller of the network

15   switch;

16   a second software application operable to execute on the CPU,

17   wherein the second software application communicates with the FDDL system,

18   wherein the FDDL system comprises:

19   a base FDDL system;

20   a software application tower FDDL system; and

21   a second software application tower FDDL system,

22   wherein the base FDDL system communicates with the switch device drivers, the

23   software application communicates with the software application tower FDDL system,

24   the second software application communicates with the second software application

25   tower FDDL system, and the base FDDL system communicates with the software

26   application tower FDDL system and the second software application tower FDDL

27   system.

(28)   Claim 28: (cancelled)

1   (29)   Claim 29: (original) The network system of claim 27 wherein the FDDL system

2   defines an FDDL API for communication with the software application, and the FDDL

3   system defines a Switch Services API for communication with the switch device driver.

1   (30)   Claim 30: (currently amended) The network system of claim ~~28~~ 27 wherein the

2   FDDL system defines an FDDL API for communication with the software application

3   and the second software application, and the FDDL system defines a Switch Services

4   API for communication with the switch device driver.

(31)   Claim 31: (cancelled)

1   (32)   Claim 32: (original) The network system of claim 27 further comprising:

2   an independent software application operable to execute on the CPU; and

3   an independent software application shim operable to execute on the CPU,

4   wherein the independent software application communicates with the

5   independent software application shim and the independent software application shim

6   communicates with the switch device driver.

1   (33)   Claim 33: (original) The network system of claim 32 further comprising a second

2   software application operable to execute on the CPU,

3   wherein the FDDL system defines an FDDL API for communication with the

4   software application and the second software application, and the FDDL system defines

5   a Switch Services API for communication with the switch device driver.

1   (34)   Claim 34: (original) The network system of claim 32 wherein the FDDL system

2   comprises:

3   a base FDDL system;

4   a software application tower FDDL system; and

5   a second software application tower FDDL system

6   wherein the base FDDL system communicates with the switch device driver, the

7   software application communicates with the software application tower FDDL system,

8   the second software application communicates with the second software application

9   tower FDDL system, and the base FDDL system communicates with the software

10   application tower FDDL system and the second software application tower FDDL

11   system.